

**AMENDMENT TO THE SPECIFICATION**

Please amend the paragraph beginning on page 1, line 23 as follows:

--Next, as shown in FIG. 8B, the insulating film 104 is etched by plasma dry etching using the resist pattern 105 as a mask to form an opening 104a in the insulating film 104. In this manner, the surface of the conductive pattern 103 is exposed. The plasma dry etching is performed using a parallel plate RIE system under the conditions where the flow rate of a CF<sub>4</sub> gas as an etching gas is 50 mL/min (normal state), the flow rate of an O<sub>2</sub> gas as a control gas for a deposit to be etched is 10 mL/min (normal state), the substrate temperature is 25°C [[C°]], the RF output power is 1000 W, and the inside chamber pressure is 5 Pa--

Please amend the paragraph beginning on page 2, line 6 as follows:

--Next, as shown in FIG. 8C, ashing using an oxygen gas is performed to remove the resist pattern 105. The ashing is performed using a microwave plasma ashing system under the conditions where the flow rate of an oxygen gas is 1000 mL/min (normal state), the microwave output power is 2000 W, the discharge time is about 1 minute, the substrate temperature is about 250°C [[C°]] and the pressure is about 100 Pa. By the ashing, a copper oxide layer 103a having a thickness of about 40 nm is formed on the surface of the conductive film 103.--

Please amend the paragraph beginning on page 4, line 9 as follows:

--In the first method for fabricating a semiconductor device, it is preferable that the step of forming an antioxidant layer includes performing oxygen plasma treatment with a substrate

temperature of  $120^{\circ}\text{C}$   $[[^{\circ}\text{C}]$  or less.--

Please amend the paragraph beginning on page 6, line 6 as follows:

--In the second method for fabricating a semiconductor device, it is preferable that the step of removing the resist pattern includes performing oxygen plasma treatment with a substrate temperature of not less than  $200^{\circ}\text{C}$   $[[^{\circ}\text{C}]$  and not more than  $250^{\circ}\text{C}$   $[[^{\circ}\text{C}]]$ .--

Please amend the paragraph beginning on page 8, line 15 as follows:

--Next, as shown in FIG. 1B, the insulating film 14 is etched by plasma dry etching using the resist pattern 15 as a mask to form an opening 14a in the insulating film 14. In this manner, the surface of the conductive pattern 13 is exposed. The plasma dry etching is performed using a parallel plate RIE system under the conditions where the flow rate of a  $\text{CF}_4$  gas as an etching gas is 50 mL/min (normal state), the flow rate of an  $\text{O}_2$  gas as a control gas for a deposit to be etched is 10 mL/min (normal state), the substrate temperature is  $25^{\circ}\text{C}$   $[[^{\circ}\text{C}]]$ , the RF output power is 1000 W, and the inside chamber pressure is 5 Pa.--

Please amend the paragraph beginning on page 8, line 23 as follows:

--Next, as shown in FIG. 1C, ashing using an oxygen gas is performed to remove the resist pattern 15. The ashing is performed using a microwave plasma ashing system under the conditions where the flow rate of an oxygen gas is 300 mL/min (normal state), the microwave output power is 2000 W, the discharge time is about 3 minutes, the substrate temperature is about  $25^{\circ}\text{C}$   $[[^{\circ}\text{C}]]$  and the pressure is about 5 Pa. By this ashing, the resist pattern 15 is removed and a copper oxide layer 13a which has a thickness of about 5 nm and serves as an antioxidant layer is

formed on part of the surface of the conductive film 13 exposed. Details of the copper oxide layer 13a will be described later.--

Please amend the paragraph beginning on page 11, line 23 as follows:

--As shown in FIG. 5, the substrate temperature is over  $120^{\circ}\text{C}$  [ $^{\circ}\text{C}$ ], a thermal reaction is accelerated. Accordingly,  $\text{Cu}_2\text{O}$  is rapidly generated and therefore the generation ratio of  $\text{CuO}$  to the entire copper oxide becomes low. On the other hand, when the substrate temperature is  $120^{\circ}\text{C}$  [ $^{\circ}\text{C}$ ] or less, the generation ratio of  $\text{Cu}$  to the entire copper oxide is high. Note that the preferable lower limit of the substrate temperature is not particularly limited. However, it is more preferable that the substrate temperature is  $0^{\circ}\text{C}$  [ $^{\circ}\text{C}$ ] or more in order to avoid making a semiconductor device complicated.--

Please amend the paragraph beginning on page 12, line 5 as follows:

--As has been described, it has been clearly shown by FIGS. 4 and 5 that if ashing is performed with a substrate temperature of  $120^{\circ}\text{C}$  [ $^{\circ}\text{C}$ ] or less or with an inside chamber pressure of 40 Pa or less, the proportion of  $\text{CuO}$  in the copper oxide layer 13a as an antioxidant layer formed on the conductive pattern 13 is increased while the proportion of  $\text{Cu}_2\text{O}$  generated on the surface of the conductive pattern 13 is reduced. Accordingly, the oxidation of the conductive pattern 13 can be further suppressed and thus the formation of a thick oxide film which is difficult to be removed on the surface of the conductive pattern 13 can be reliably prevented. Therefore, the antioxidant layer formed on the surface of the conductive pattern 13 can be removed in a more simple manner.--

Please amend the paragraph beginning on page 15, line 10 as follows:

--Next, as shown in FIG. 7B, the insulating film 24 is etched by plasma dry etching using the resist pattern 25 as a mask to form an opening 24a in the insulating film 24. In this manner, the surface of the conductive pattern 23 is exposed. The plasma dry etching is performed using a parallel plate RIE system under the conditions where the flow rate of a CF<sub>4</sub> gas as an etching gas is 50 mL/min (normal state), the flow rate of an O<sub>2</sub> gas as a control gas for a deposit to be etched is 10 mL/min (normal state), the substrate temperature is 25°C [[C°]], the RF output power is 1000 W, and the inside chamber pressure is 5 Pa.--

Please amend the paragraph beginning on page 15, line 18 as follows:

--Next, as shown in FIG. 7C, continuously using the parallel plate RIE system which has been used in the plasma dry etching, oxygen plasma treatment is performed in the same chamber under the conditions where the flow rate of an oxygen gas is about 300 mL/min (normal state), the RF output power is 200 W, the discharge time is about 10 seconds, the substrate temperature is 25°C [[C°]] and the pressure is about 5 Pa. Thus, a copper oxide layer 23a which contains CuO as a main component, has a thickness of about 5 nm, and serves as an antioxidant layer is formed on the surface of the conductive film 23. As has been described, the oxygen plasma treatment is performed in the same chamber, and thus the opening 24a at which the conductive pattern 23 is exposed is not exposed to the air. Accordingly, oxidation of the surface of the conductive pattern 23 can be prevented. Moreover, since the copper oxide layer 23a is passive, the thickness of the copper oxide layer 23a is not increased any more like the copper oxide layer 13a in the first embodiment.--

Please amend the paragraph beginning on page 16, line 6 as follows:

--Next, as shown in FIG. 7D, ashing using an oxygen gas is performed to remove the resist pattern 25. The ashing is performed using a microwave plasma ashing system under the conditions where the flow rate of an oxygen gas is 1000 mL/min (normal state), the microwave output power is 2000 W, the substrate temperature is about 250°C ~~[[C°]]~~ and the pressure is about 100 Pa. As has been described, unlike the first embodiment, since the copper oxide layer 23a as an antioxidant layer has been formed before the resist pattern is removed by ashing, the resist pattern 25 is removed by performing ashing at high temperature and high pressure. Thus, the discharge time can be reduced to about 1 minute. Note that the plasma treatment is preferably performed with the substrate temperature of not less than 200°C ~~[[C°]]~~ and not more than 250°C ~~[[C°]]~~.--